IN THE CLAIMS:

Please amend claims 1, 3-5, 7-8, 11-15, 19, 23, 25 and 27 as follows:

1. (Currently Amended) A surface-treatment method, comprising an operation of conveying a base material in a particular direction and a gas-supplying operation of supplying a surface-treating gas onto the surface of the base material, wherein the gas-supplying operation is performed by using a surface-treatment equipment having an opposing member formed at a position separated from the base material and a rotor with a cylindrical peripheral surface facing the opposing member, the opposing member and the cylindrical peripheral surface being separated by a narrow gap from each other, and by rotating the rotor around [[the]] an axis almost perpendicular to the base material-conveying direction and allowing the surface-treating gas to be dragged by the cylindrical peripheral surface of the rotor into the narrow gap and further fed from the gap onto the base material surface.

2. (Original) The surface-treatment method according to Claim 1, wherein the gas-supplying operation is performed so as to feed the gas flowing back from the gap toward upstream in the rotor-rotation direction onto the surface of the base material.

3. (Currently Amended) The surface-treatment method according to Claim 1, wherein an electric field for plasma generation is formed in [[the]]a region from the rotor to the surface of the base material and the surface-treating gas is supplied to [[the]]a position where the electric field is formed.

4. (Currently Amended) The surface-treatment method according to Claim 1, wherein the surface treatment includes a treatment of forming a thin film on the surface of the base material and the base material surface is treated by adding a source gas being source material for the thin film to the surface-treating gas and subjecting the source gas to a chemical reaction on the base material surface or in [[the]]a neighborhood thereof where an electric field for plasma generation is formed.

5. (Currently Amended) The surface-treatment method according to Claim 3, wherein the surface treatment includes a treatment of forming a thin film on the surface of the base material and the thin film is formed on the surface of the base material by the plasma

generated by supplying the surface-treating gas into the electric field or by supplying radical species excited by the plasma onto the surface of the base material, supplying the source gas being source material for the thin film to the plasma or radical species on the base material surface and subjecting the source gas to a chemical reaction on the base material surface or in [[the]]a neighborhood thereof where the electric field is formed.

6. (Original) The surface-treatment method according to Claim 5, wherein the surface-treating gas contains at least one of an inert gas and an oxygen-containing gas.

7. (Currently Amended) A surface-treatment equipment, comprising a base material-conveying means of conveying a base material in a particular direction and a gas-supplying means of supplying a surface-treating gas onto the surface of the base material, wherein: the gas-supplying means comprises a rotor having a cylindrical peripheral surface with an axis almost perpendicular to the base material-conveying direction, a rotating means of rotating the rotor around the axis and an opposing member formed at a position facing the cylindrical peripheral surface of the rotor as separated by a gap; and the opposing member is so placed that the surface-treating gas dragged in by the cylindrical peripheral surface with the rotation of the rotor is driven to the gap between the cylindrical peripheral surface of the rotor and the opposing member and fed from the gap onto the base material surface.

8. (Currently Amended) The surface-treatment equipment according to Claim 7, wherein: an electric field-forming means of forming an electric field for plasma generation is installed in [[the]] a region from the rotor to the surface of the base material; and a surface-treatment plasma is generated by flow of the surface-treating gas in the electric field.

9. (Original) The surface-treatment equipment according to Claim 7, wherein the gas-supplying means has the rotor and the opposing member so placed that the gas flowing back from the gap toward upstream in the rotor-rotation direction is fed onto the surface of the base material.

10. (Original) The surface-treatment equipment according to Claim 7, wherein the opposing member has a guide plane guiding the surface-treating gas from the gap to the surface of

the base material.

11. (Currently Amended) The surface-treatment equipment according to Claim 10, wherein the guide plane of the opposing member faces the cylindrical peripheral surface of the rotor.

12. (Currently Amended) The surface-treatment equipment according to Claim 10, wherein the opposing member is planer in shape, [[the]] an end face thereof facing the cylindrical peripheral surface of the rotor, and a side wall of the opposing member represents the guide plane.

13. (Currently Amended) The surface-treatment equipment according to Claim 12, wherein the end face of the opposing member has a surface in the shape compatible with the cylindrical peripheral surface of the rotor.

14. (Currently Amended) The surface-treatment equipment according to Claim 12, further comprising, in addition to the opposing member, a downstream opposing member facing the cylindrical peripheral surface of the rotor as separated by a gap at a position downstream of the opposing member in the rotor-rotation direction, and at least one gas-supplying unit for supplying a gas other than the surface-treating gas into the region between the downstream opposing member and the opposing member, wherein the downstream opposing member is so placed that the gas supplied from the gas-supplying unit is dragged in by the cylindrical peripheral surface of the rotor and guided from the gap between the rotor and the downstream opposing member along the downstream opposing member to the base material surface.

15. (Currently Amended) The surface-treatment equipment according to Claim 14, wherein an electric field-forming means of forming an electric field for plasma generation is placed in [[the]] a region from the gap between the rotor and the opposing member to the base material surface so that a surface-treatment plasma is generated by the flow of the surface-treating gas in the electric field and a source gas for forming a thin film on the base material surface through a chemical reaction by the surface-treatment plasma is supplied from the gas-supplying unit.

16. (Original) The surface-treatment equipment according to Claim 14, wherein the distance between the rotor and the opposing member is smaller than the distance between the rotor and the downstream opposing member.

17. (Original) The surface-treatment equipment according to Claim 10, wherein a rectification member is placed at a position facing the guide plane so that the surface-treating gas flows between the rectification member and the guide plane.

18. (Original) The surface-treatment equipment according to Claim 17, wherein opposed plasma-generating electrodes are placed on the guide plane and the opposed face of the rectification member so that the surface-treating gas is subjected to a chemical reaction by allowing the surface-treating gas to pass between the electrodes in the state where an voltage is applied between these electrodes.

19. (Currently Amended) The surface-treatment equipment according to Claim 17, wherein the clearance between the guide plane of the opposing member and the rectification member is greater than the clearance between the cylindrical peripheral surface of the rotor and the guide plane.

20. (Original) The surface-treatment equipment according to Claim 7, further comprising a partitioning member covering the rotor and the opposing member, wherein the partitioning member has a surface-treating-gas inlet port for introducing a surface-treating gas into the partitioning member and a surface-treating-gas outlet port for discharging the surface-treating gas from the gap between the rotor and the opposing member in the partitioning member to the surface of the base material.

21. (Original) The surface-treatment equipment according to Claim 9, wherein the opposing member is placed between the surface of the base material and the rotor as it also faces the surface of the base material and has a gas outlet port located at the opposing member at a position upstream of the position where the clearance between the opposing member and the rotor is minimal in the rotor-rotation direction, so that the gas flowing back from the gap toward upstream in the rotor-rotation direction is fed through the gas outlet port onto the base material surface.

22. (Original) The surface-treatment equipment according to Claim 21, wherein the gas outlet port is gap in shape and extends in the direction in parallel with the rotation-axis direction of the rotor.

23. (Currently Amended) The surface-treatment equipment according to Claim 21, wherein the opposing member has a concave curving along the cylindrical peripheral surface of the rotor and is placed at a position where an almost uniform narrow gap is formed between the concave and the cylindrical peripheral surface of the rotor in the circumferential direction.

24. (Original) The surface-treatment equipment according to Claim 21, further comprising a partitioning member covering the rotor, wherein the partitioning member has a surface-treating-gas inlet port for introducing a surface-treating gas into the partitioning member and part of the wall constituting the partitioning member represents the opposing member present between the rotor and the base material.

25. (Currently Amended) A surface-treatment equipment for treating the surface of a base material by subjecting a surface-treating gas to a chemical reaction on the base material surface or in [[the]] a neighborhood thereof where an electric field for plasma generation is formed, comprising a base material-conveying means of conveying a base material in a particular direction and a gas-supplying means of supplying a surface-treating gas into the surface of the base material, wherein: the gas-supplying means comprises a rotor having a cylindrical peripheral surface with an axis almost perpendicular to the base material-conveying direction, the cylindrical peripheral surface facing the surface of the base material conveyed by the base material-conveying means, a rotating means of rotating the rotor around the axis, a partitioning member covering the rotor except the region of the rotor facing the surface of the base material and an electric field-forming means of forming an electric field between the face of the partitioning member facing the surface of the base material and the surface of the base material; the surface-treating gas supplied into the partitioning member is driven into the gap between the cylindrical peripheral surface of the rotor and the surface of the base material by rotation of the rotor as it is dragged in by the cylindrical peripheral surface; and the rotor and the partitioning member are so placed that plasma is generated as the surface-treating gas is supplied from the gap into [[the]] a region where an electric field is formed by the electric field-

forming means.

26. (Original) The surface-treatment equipment according to Claim 25, wherein the gas-supplying means has the rotor and the partitioning member so placed that the gas flowing back from the gap between the rotor and the surface of the base material toward upstream in the rotor-rotation direction is fed into the electric field-forming region.

27. (Currently Amended) The surface-treatment equipment according to Claim 25, wherein the clearance between the surface of the base material and its opposing face of the partitioning member in the electric field-forming region is greater than the clearance between the surface of the base material and the cylindrical peripheral surface of the rotor.